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 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Light 05000261  
 AUTH. NAME: UTLEY, E. E. AUTHOR AFFILIATION: Carolina Power & Light Co.  
 RECIP. NAME: VARGA, S. A. RECIPIENT AFFILIATION: Operating Reactors Branch 1

SUBJECT: Request for license amend, incorporating new specs for hydraulic snubbers per DG Eisenhut 801120 ltr. Justification provided for exemption from functional testing requirements for 12 snubbers on unit steam generators.

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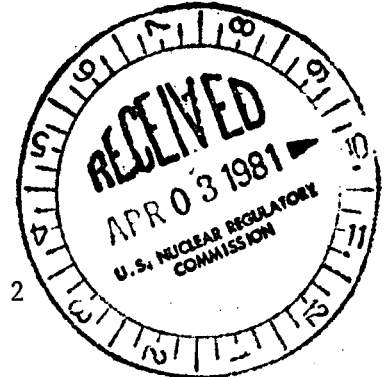
Carolina Power & Light Company

March 27, 1981

FILE: NG-3514(R)

SERIAL: NO-81-555

Office Of Nuclear Reactor Regulation  
ATTENTION: Mr. Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555



H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261  
LICENSE NO. DPR-23

REQUEST FOR LICENSE AMENDMENT-HYDRAULIC SNUBBER SURVEILLANCE

Dear Mr. Varga:

SUMMARY

In accordance with the Code of Federal Regulations, Title 10, Part 50.90 and Part 2.101, Carolina Power & Light Company (CP&L) hereby requests revisions to the Technical Specifications for its H. B. Robinson Unit No. 2. The proposed changes incorporate new specifications for hydraulic snubbers as requested in Mr. D. G. Eisenhut's letter of November 20, 1980. Also included is a request and justification for exemption from the functional testing requirements for the twelve snubbers mounted on the unit steam generators.

EXEMPTION REQUEST

Carolina Power & Light Company hereby requests an exemption from functional testing the twelve snubbers mounted on the three steam generators. These snubbers are made by Anker Holth Division of McDowell Wellman Engineering Company and are rated at 500,000 lbf. These snubbers, each weighing about 600 pounds, are mounted on the midplane of the generators and, when removed, must be lowered 44 feet from the ceiling of the reactor coolant pump bays. Due to the their size and operating characteristics, these snubbers would have to be shipped offsite to an outside firm for functional testing.

EXEMPTION JUSTIFICATION

The design specification for these snubbers states a recommended service life for renewable parts on the basis of accumulated radiation dose. The service lives are as follows:

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1. Seal Material
  - a. Backup rings: asbestos fabric filled with phenolic resin - 250 megarads.
  - b. Elastomeric 'O' rings: Viton A - 8 megarads.
2. Hydraulic Fluid: General Electric Versilube (F-50)-8 megarads.
3. Reservoir Bodies: plexiglass - 2 megarads.

The snubbers are presently mounted in a four rad per hour radiation field. This field does not change much from day to day but may increase slowly during the life of the plant if the general contamination level in containment increases. Using the present radiation level, it would take over 200 years of continuous operation to exceed the suggested limit on the Viton rings and hydraulic fluid. Therefore, the radiation level at the snubbers would have to increase by a factor of six before the service life of the 'O' rings and fluid would be exceeded during the expected 40 year life of the plant. Likewise, an increase in the continuous radiation level of over 150 times would be needed before the backup rings' service life would be exceeded during the life of the plant.

The reservoir bodies are mounted on the steam generator pedestals on the third level in containment. The reservoirs are on the outer side of the pedestals facing away from the reactor. The radiation level at this location is presently between 0.10 and 0.20 rads per hour. Since their suggested radiation limit is 2 megarads, the reservoirs would have to be exposed to the present level for over 10 million hours before exceeding the limit. In order for the limit to be exceeded during the life of the plant, the radiation level would have to increase by a factor of 25.

All the components mentioned above were designed to operate satisfactorily within a temperature range of between 50 and 120°F. The accumulative time that the snubbers' environment is outside this range is very small if any. Therefore, the temperature effects, not previously analyzed, on the seals, fluid, and reservoir bodies are negligible and do not affect their service life.

The snubber manufacturer has stated that the piston of each snubber should be moved periodically in order to exercise the seals. Due to normal thermal movement, the snubbers travel 35% of their full stroke during each reactor shutdown to cold shutdown and startup from cold shutdown. This natural movement of the pistons is sufficient to exercise the seals.

Based on the operating environment experienced by these snubbers and the lifetime expectancy of the noted material as dictated by the radiation dose limits, the service life of the steam generator snubbers far exceeds the life expectancy of the plant. For this reason and due to the difficulties encountered during removal, testing, and reinstallation, it is requested that functional testing of these snubbers be conducted when visual inspections dictate (i.e. following corrective maintenance) and not on a periodic basis.

TECHNICAL SPECIFICATION CHANGE

Attached you will find revised Technical Specification pages in the H. B. Robinson format with the changes indicated by a vertical bar in the right-hand margin. Since the Robinson plant has only hydraulic snubbers, no requirements for mechanical snubbers have been provided. We believe that this request constitutes one Class III amendment in accordance with 10CFR170.22. Accordingly our check for \$4000.00 is enclosed.

Yours very truly,



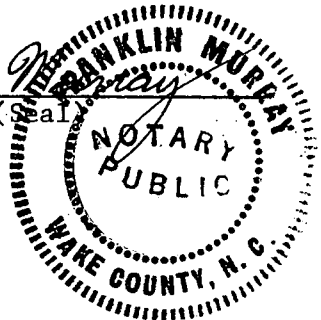
E. E. Utley  
Executive Vice President  
Power Supply and  
Engineering & Construction

CSB/SDF/dk (N#47)

cc: Mr. J. D. Neighbors

E. E. Utley, having been first duly sworn, did depose and say that the information contained herein is true and correct to his own personal knowledge or based upon information and belief.

Franklin Murray  
Notary (Seal)



My commission expires: October 4, 1981